Data Record: Juvenile Salmon and Other Fish Species Captured in Intertidal Areas Near Nanaimo, 1975-1976

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DATA RECORD: JUVENILE SALMON AND OTHER FISH SPECIES CAPTURED IN INTERTIDAL AREAS NEAR NANAIMO, 1975-1976

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ABSTRACT

Schmidt, R. V., M. C. Healey, F. P. Jordan, and R. M. Hungar. 1978. Data Record: Juvenile salmon and other fish species captured in intertidal areas near Nanaimo, 1975-1976. Fish. Mar. Serv. Data Rep. 111: 51 p.

This report summarizes catches of juvenile salmon and other associated fishes in intertidal areas near the Nanaimo estuary. Average lengths, weights, dry stomach content weights and species composition of the diet are included.

Key words: Salmon, intertidal, Pacific, Georgia Strait, food.

RÉSUMÉ

Schmidt, R. V., M. C. Healey, F. P. Jordan, and R. M. Hungar. 1978. Data Record: Juvenile salmon and other fish species captured in intertidal areas near Nanaimo, 1975-1976. Fish. Mar. Serv. Data Rep. 111: 51 p.

Le présent rapport consiste en un sommaire des prises de saumons juvéniles et d'autres espèces de poissons que l'on trouve dans les zones intertidales situées près de l'estuaire de la Nanaimo. On y présente des données sur la longueur moyenne, la masse, la masse sèche du contenu stomacal et la composition du régime de chaque espèce.

Mots-clés: saumon, zone intertidale, Pacifique, détroit de Georgie, régime alimentaire.

INTRODUCTION

In 1975 we began research on the population ecology of juvenile Pacific salmon (Oncorhynchus spp.) during the first few months after they enter the sea. Our research was part of the collaborative research project on the ecology of young salmon in the sea which emphasized interactions among young salmon, their food competitors, and their predators (Healey et al. 1976).

In 1975 and 1976 our research centered on young salmon in the Nanaimo area, particularly chum (O. keta) fry from the Nanaimo River. Our objectives were to estimate the daily emigration of chum fry from the Nanaimo River, their distribution and abundance in the local area and the contribution of Nanaimo fry to the local population, their size and rate of growth, and their feeding habits. Previous reports summarized data on the distribution, abundance, growth of young salmon in the Nanaimo area in 1975 (Healey et al. 1977a, 1977b), and catch and food habits of young salmon and other species on the Nanaimo River estuary (Schmidt et al. 1978). This data record contains the information on catch, size, and stomach contents of young salmon and other species captured by dip net and beach seine in intertidal areas near Nanaimo in 1975 and 1976.

METHODS

We described capture techniques, marking techniques, sampling locations and sample treatment in detail in a previous report (Healey et al. 1977a). Ten locations in the Nanaimo area were sampled in 1975 and 1976 (Fig. 1).

The beach seine used was 18 m long by 3 m deep. In the bunt, the mesh was 6 mm and the lead was 12 mm. Beach seine sets were usually made by pulling the seine along 20-40 m of beach. In setting the seine, one person pulled the net offshore until he was in 1 m of water or 10 m offshore. Then, both ends of the net were hauled parallel to the shore until the sweep was complete. In some areas where the beach dropped off rapidly, the offshore end of the net was hauled by boat. At the end of the sweep the offshore end of the net was returned to shore to close the net. The cork and lead lines were then hauled in together and the catch bagged in the fine mesh bunt. In April, fry were congregated in small schools in a few centimeters of water. At this time, in 1976, fry were herded along the shore and sampled by dip net. The analyses of these samples are grouped at the beginning of the 1976 data.

Catches were sorted by species in the field and the number of each species was counted or estimated. Estimates of total catch were made where catches were large to avoid excessive mortality. Household sieves with plastic mesh were used to scoop the catch out of the seine net and the number of sieves full of fish in the catch was counted. Several sieves full of fish were retained for a sample and the number of fish per sieve and the composition of the salmon catch were estimated from the sample. Salmon were the only species regularly counted, although estimates or counts of other species were sometimes made, especially in 1975. A sample of the salmon species was returned to the lab to be examined for tags, for length and weight measurements and for stomach content analysis.

Understanding the tables will be assisted by the following points: Each table summarizes the catch data for all samples taken at one station on a single day. The locations of the sampling stations are shown in Fig. 1. In some instances data for two areas are presented on the same page.

1. TIME: Local time except for the tide tables which are in standard time.

2. WEATHER: Recorded when the sets were made; daily summaries are from the Nanaimo (Cassidy) airport meteorological station.

3. TIDES: Times and heights of tides are those for Point Atkinson.

4. CATCH: The total catch of a species is recorded. The number of marked fish in the total catch is recorded by color of mark. Fry were marked by spraying them with fluorescent grit during their downstream migration (Healey et al. 1977a).

5. MARKED FISH: Samples of unmarked and marked fish were analyzed separately. The summary of length, weight, and stomach information for unmarked fish is followed by the summary for each color of marked fish recaptured. Dates of release, number released and weighted average day of release (calculated as Healey et al. 1977a) for each mark used in 1975 and 1976 are shown in Table 1. Mean length and weight of downstream migrant chum fry was 36 mm and 0.41 g.

6. LENGTHS: Average fork length and standard error.

7. WEIGHTS: Fish weights recorded were wet weights of preserved fish blotted to remove excess moisture. In 1975, individual fish were weighed; in 1976, the total weight of a sample of fish was recorded and divided by the sample size to get average weight. Where two or more samples were weighed, a standard error was calculated for the average weights.

8. STOMACH CONTENTS: Wet weights of individual stomach contents were recorded for all marked fish in 1975 and for unmarked fish captured in March, April, and part of May 1975. After this the procedure was changed to recording the dry weight of a group of 10 or more stomach contents and dividing by sample size to get average weight. Wet weights of stomach contents were converted to estimates of dry weight by assuming 20% dry matter. Percent is percent of dry body weight (again estimated as 20% of wet preserved weight).

9. DIET BY SIZE: The size ranges of diet items are indicated by the upper limit of the size range, i.e. <1 mm, -1.5 mm (=1 - 1.5 mm), -2.5, (=1.5 - 2.5 mm), etc. Under each size interval is the average number of organisms of that size found in the stomachs examined. N is the number of stomachs analyzed. SUM is the average total number of organisms per stomach. The sum, however, may not always equal the averages for the individual size classes due to rounding errors.

10. DIET ITEMS: The number of stomachs analyzed is shown as N = followed by the column headings:

a) CODE: Our internal taxonomic code.
b) # STOM: The number of stomachs out of the total examined that contained the particular diet item.
c) N: The actual number of specimens of the particular species found in all the stomachs examined.
d) %: The previous number (N) as a percent of the total number of organisms in the stomachs.
e) NAME: The common taxonomic name for the diet item.
f) : No entry under the title line indicates the stomachs were empty.
g) : No entry under a column heading indicates no data.

Occasionally, the number of chum stomachs analyzed is higher than the number of chum caught. This happened when a chinook was present in the sample and its stomach contents were accidentally lumped with the chum stomachs during analysis. In a few instances, a marked chum was included with the stomach analysis of unmarked chum.

11. MISCELLANEOUS: Species of fish, other than salmon, were not always counted. No catch record for a species indicates the species was present in the catch but its abundance was not recorded. Depths were recorded in fathoms and converted to meters for this report. Hence, the numerous depths reported as 2 meters from the conversion of 1 fathom to meters means samples were taken from 0-1 fathom (0-2 m).

ACKNOWLEDGEMENTS

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Table 1. Dates of release, number released, and weighted average day of release of chum marked in the Nanaimo River during 1975 and 1976.

Mark color	Number released	Dates of release	Average date of release
		1975	
Blue	3,862	March 11-March 23	March 18
Orange	9,395	March 24-April 01	March 31
Green	22,032	April 02-April 11	April 10
Red	50,034	April 12-April 20	April 17
Blue-orange	21,702	April 21-April 24	April 24
Green-orange	281,360	April 25-May 24	May 08
		1976	
Red	75,248	April 07-April 19	April 15
Green	93,054	April 20-May 02	April 27
Blue	59,899	May 03 - May 24	May 09

8MAY75 1900HR AREA 17

NEARSHORE BEACH SEINES MARK BAY

WEATHER CONDITIONS

AT SET TIME	SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	MAX TEMP (C)	20.0	250	13.6	4.15
SPEED (KM/H)	MIN TEMP (C)	2.8	950	4.9	1.49
CLOUD (/10)	PRECIP. (MM)	0.0	1645	12.8	3.90
SEA	SUN (HR)	12.7	2150	9.7	2.96

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK RED	GR/OR
8500.	9	1	8

RED

	N= 1	AVERAGE LENGTH (MM)	48.	S.E.	0.00				
	N= 1	AVERAGE WEIGHT (G)	1.16	S.E.	0.00				
STOMACH CONTENT	N= 1	AVERAGE WEIGHT (MG)	8.4	%	3.62				
DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	1	6	1	0	22	5	0	0	34

DIET ITEMS N= 1 CODE	# STOM	N	%	NAME
Y70	1	2	5.6	HYMENOPTERA
RN0	1	6	16.7	CALANUS PLUMCHRUS
UY0	1	6	16.7	HARPACTICOID GENERAL
YH1	1	22	61.1	SHRIMP LARVA

GR/OR

	N= 8	AVERAGE LENGTH (MM)	37.	S.E.	0.50				
	N= 8	AVERAGE WEIGHT (G)	0.40	S.E.	0.03				
STOMACH CONTENT	N= 8	AVERAGE WEIGHT (MG)	2.0	%	2.45				
DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	8	5	10	2	2	1	0	0	19

DIET ITEMS N= 8 CODE	# STOM	N	%	NAME
UY0	7	34	19.8	HARPACTICOID GENERAL
YH1	4	31	18.0	SHRIMP LARVA
WU0	5	86	50.0	GAMMERIDEAE
WW5	2	2	1.2	COROPHIIDAE
Y95	5	7	4.1	THYSANOPTERA
XS1	1	1	0.6	CRAB ZOEA
Y63	1	1	0.6	CHIRONOMIDAE LARVA
RN0	3	5	2.9	CALANUS PLUMCHRUS
VY2	2	2	1.2	CIRRIPEDIA CYPRID
X70	1	1	0.6	COLLEMBOLA
Z60	1	2	1.2	ACARINA

13MAY75 1500HR AREA 1 DEPTH 2 1 SET

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY	
WIND DIRECTION		MAX TEMP (C)	21.1
SPEED (KM/H)		MIN TEMP (C)	4.4
CLOUD (/10)	0	PRECIP. (MM)	0.0
SEA	CALM	SUN (HR)	13.1

TIDES

PST	FEET	METERS
30	10.8	3.29
515	13.7	4.18
1240	2.1	0.64
2005	14.7	4.48

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/UR
3647.	30	30

UNMARKED FISH

N= 30 AVERAGE LENGTH (MM) 40. S.E. 1.10
N= 30 AVERAGE WEIGHT (G) 0.59 S.E. 0.08
N= 20 AVERAGE WEIGHT (MG) 4.0 % 3.40

STOMACH CONTENT
DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
5	43	15	0	1	11	0	0	71

DIET ITEMS N= 5

CODE	# STOM	N	%	NAME
UY0	5	286	78.4	HARPACTICOID GENERAL
YH1	3	10	2.7	SHRIMP LARVA
C71	1	1	0.3	OIKOPLEURA SP.
RL0	3	57	15.6	CALANUS SP.
RN0	2	9	2.5	CALANUS PLUMCHRUS
Y55	1	1	0.3	DIPTERA
X63	1	1	0.3	INSECTA PUPA

GR/UR

N= 30 AVERAGE LENGTH (MM) 37. S.E. 0.33
N= 30 AVERAGE WEIGHT (G) 0.43 S.E. 0.02
N= 30 AVERAGE WEIGHT (MG) 3.7 % 4.30

STOMACH CONTENT
DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
30	25	30	2	0	3	0	0	60

DIET ITEMS N=30

CODE	# STOM	N	%	NAME
UY0	28	1684	90.3	HARPACTICOID GENERAL
VY2	1	1	0.1	CIRRIPEDIA CYPRID
RK0	18	64	3.4	COPEPODA GENERAL
WX8	1	1	0.1	PLEUSTIDAE
RN0	15	80	4.3	CALANUS PLUMCHRUS
WU0	4	9	0.5	GAMMERIDEAE
Y63	1	1	0.1	CHIRONOMIDAE LARVA
VY1	1	1	0.1	CIRRIPEDIA NAUPLIUS
GF7	1	1	0.1	SYLLIDAE
YH1	4	9	0.5	SHRIMP LARVA
Y55	2	3	0.2	DIPTERA
Y58	2	2	0.1	DIPTERA PUPA
X60	2	2	0.1	INSECTA GENERAL
D68	1	1	0.1	EGGS FISH
Z50	1	1	0.1	ARANEIDA
WX2	2	2	0.1	AMPHITHOIDAE
WL5	1	2	0.1	LEPTOCUMA SP.

15MAY75 1400HR AREA 1 1 SET

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS AT SET TIME	SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	MAX TEMP (C)	21.1	215	10.9	3.32
SPEED (KM/H)	MIN TEMP (C)	8.3	650	13.1	3.99
CLOUD (/10)	PRECIP. (MM)	1.5	1410	2.4	0.73
SEA	SUN (HR)	1.7	2145	14.9	4.54

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/UR
201.	2	2

UNMARKED FISH

N= 33 AVERAGE LENGTH (MM) 48. S.E. 1.94
N= 33 AVERAGE WEIGHT (G) 1.22 S.E. 0.20
STOMACH CONTENT N= 20 AVERAGE WEIGHT (MG) 1.8 % 0.74

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	5	0	0	0	0	0	0	0	0

DIET ITEMS N= 5 CODE # STOM N % NAME GR/UR

N= 2 AVERAGE LENGTH (MM) 47. S.E. 9.00
N= 2 AVERAGE WEIGHT (G) 1.14 S.E. 0.70
STOMACH CONTENT N= 2 AVERAGE WEIGHT (MG) 1.5 % 0.66

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	2	0	0	0	0	0	0	0	0

DIET ITEMS N= 2 CODE # STOM N % NAME

CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA CATCH 2.

15MAY75 1430HR AREA 1 1 SET

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION
SPEED (KM/H)
CLOUD (/10)
SEA

SUMMARY FOR DAY

MAX TEMP (C)	21.1	
MIN TEMP (C)	8.3	
PRECIP. (MM)	1.5	
SUN (HR)	1.7	

TIDES

PST	FEET	METERS
215	10.9	3.32
650	13.1	3.99
1410	2.4	0.73
2145	14.9	4.54

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/OR
200.	2	2

UNMARKED FISH

N= 50 AVERAGE LENGTH (MM) 38. S.E. 0.37
N= 50 AVERAGE WEIGHT (G) 0.46 S.E. 0.01
N= 20 AVERAGE WEIGHT (MG) 1.6 % 1.76

STOMACH CONTENT
DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
5	13	30	0	0	0	3	0	46

DIET ITEMS N= 5

CODE	# STOM	N	%	NAME
UY0	5	230	92.0	HARPACTICOID GENERAL
WU0	2	2	0.8	GAMMERIDEAE
WW9	1	1	0.4	CALLIOPIIDAE
WJ0	2	2	0.8	CUMACEA GENERAL
WL5	1	11	4.4	LEPTOCUMA SP.
Y55	1	1	0.4	DIPTERA
VY2	2	2	0.8	CIRRIPEDIA CYPRID
X64	1	1	0.4	INSECTA ADULT

GR/OR

N= 2 AVERAGE LENGTH (MM) 40. S.E. 0.50
N= 2 AVERAGE WEIGHT (G) 0.55 S.E. 0.01
N= 2 AVERAGE WEIGHT (MG) 2.2 % 1.98

STOMACH CONTENT
DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
2	152	41	2	1	1	0	0	196

DIET ITEMS N= 2

CODE	# STOM	N	%	NAME
WW9	2	4	1.0	CALLIOPIIDAE
XA3	1	1	0.3	ISAEIDAE
WL5	1	1	0.3	LEPTOCUMA SP.
UZ9	2	5	1.3	PORCELLIDIDAE
UY0	2	381	96.7	HARPACTICOID GENERAL
VY2	1	2	0.5	CIRRIPEDIA CYPRID

15MAY75 1500HR AREA 16 DEPTH 2 1 SET

NEARSHORE BEACH SEINES DUKE POINT

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION SE
SPEED (KM/H)
CLOUD (/10)
SEA

SUMMARY FOR DAY

MAX TEMP (C)	21.1
MIN TEMP (C)	8.3
PRECIP. (MM)	1.5
SUN (HR)	1.7

TIDES

PST	FEET	METERS
215	10.9	3.32
650	13.1	3.99
1410	2.4	0.73
2145	14.9	4.54

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/OR
2330.	36	36

UNMARKED FISH

N=107 AVERAGE LENGTH (MM) 37. S.E. 0.24
N=107 AVERAGE WEIGHT (G) 0.41 S.E. 0.01
N= 30 AVERAGE WEIGHT (MG) 2.8 % 3.48

STOMACH CONTENT
DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
30	65	39	6	0	0	0	0	110

DIET ITEMS N=30 CODE	# STOM	N	%	NAME
Y55	6	13	0.4	DIPTERA
UY0	29	3185	94.7	HARPACTICOID GENERAL
RK0	2	4	0.1	COPEPODA GENERAL
VY2	4	4	0.1	CIRRIPEDIA CYPRID
WX8	9	23	0.7	PLEUSTIDAE
WU0	20	119	3.5	GAMMERIDEAE
Y63	2	2	0.1	CHIRONOMIDAE LARVA
WL5	2	2	0.1	LEPTOCUMA SP.
SW0	1	2	0.1	EURYTEMORA SP.
WW5	1	1	0.0	CUROPHIIDAE
YH1	1	1	0.0	SHRIMP LARVA
XJ5	1	2	0.1	CAPRELLA SP.
A70	3	5	0.1	CYPHONAUTES SP.
RR0	1	1	0.0	PSEUDOCALANUS MINUTUS

GR/OR

N= 18 AVERAGE LENGTH (MM) 37. S.E. 0.47
N= 18 AVERAGE WEIGHT (G) 0.41 S.E. 0.03
N= 18 AVERAGE WEIGHT (MG) 2.2 % 2.70

STOMACH CONTENT
DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
18	83	22	2	0	0	0	0	108

DIET ITEMS N=18 CODE	# STOM	N	%	NAME
UY0	18	1913	96.1	HARPACTICOID GENERAL
GF7	2	2	0.1	SYLLIDAE
WU0	7	25	1.3	GAMMERIDEAE
XS1	1	1	0.1	CRAB ZOEA
Y63	2	2	0.1	CHIRONOMIDAE LARVA
RK6	1	1	0.1	CALIGUS SP.
WX8	4	25	1.3	PLEUSTIDAE
WW5	2	2	0.1	CUROPHIIDAE
WL5	3	5	0.3	LEPTOCUMA SP.
WI0	1	1	0.1	TANAIDACEAE
WA0	2	2	0.1	MYSIDACEA GENERAL
001	1	2	0.1	LARVAL FISHES
Y55	4	5	0.3	DIPTERA
WX5	1	1	0.1	EUSIRIDAE
Y64	1	3	0.2	CHIRONOMIDAE PUPA
Y60	1	1	0.1	CHIRONOMIDAE

CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA CATCH 1.

STARRY FLOUNDER-PLATICHTHYS STELLATUS CATCH 2.

SPECKLED SANDDAB-CITHARICHTHYS STIGMAEUS CATCH 2.

WHITE SPOTTED GREENLING-HEXAGRAMMOS STELLERI CATCH 8.

COHO SALMON-ONCORHYNCHUS KISUTCH CATCH 1.

CRESCENT GUNNEL-PHOLIS LAETA CATCH 1.

BAY PIPEFISH-SYNGNATHUS GRISEOLINEATUS CATCH 3.

PACIFIC STAGHORN SCULPIN-LEPTOCOTTUS ARMATUS CATCH 1.

PADDED SCULPIN-ARTEDIUS FENESTRALIS CATCH 5.

15MAY75 1500HR AREA 17

NEARSHORE BEACH SEINES MARK BAY

WEATHER CONDITIONS

AT SET TIME

WIND DIRECTION

SPEED (KM/H)

CLOUD (/10)

SEA

SUMMARY FOR DAY

MAX TEMP (C) 21.1

MIN TEMP (C) 8.3

PRECIP. (MM) 1.5

SUN (HR) 1.7

TIDES

PST	FEET	METERS
215	10.9	3.32
650	13.1	3.99
1410	2.4	0.73
2145	14.9	4.54

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/UR
250.	21	21

GR/UR

N= 21 AVERAGE LENGTH (MM) 37. S.E. 0.32

N= 21 AVERAGE WEIGHT (G) 0.42 S.E. 0.02

N= 21 AVERAGE WEIGHT (MG) 2.1 % 2.49

STOMACH CONTENT

DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
21	25	14	6	2	1	0	0	48

DIET ITEMS N=21 CODE	# STOM	N	%	NAME
UYU	20	784	71.9	HARPACTICOID GENERAL
WU0	10	30	2.8	GAMMERIDEAE
Y63	17	86	7.9	CHIRONOMIDAE LARVA
WW5	5	32	2.9	CUROPHIIDAE
WL5	5	41	3.8	LEPTOCUMA SP.
VY2	3	3	0.3	CIRRIPEDIA CYPRID
Y58	5	12	1.1	DIPTERA PUPA
Y55	2	2	0.2	DIPTERA
YH1	1	25	2.3	SHRIMP LARVA
RK0	3	7	0.6	COPEPODA GENERAL
WX8	2	21	1.9	PLEUSTIDAE
WX5	1	1	0.1	EUSIRIDAE
WX2	1	1	0.1	AMPHITHOIDAE
A70	2	37	3.4	CYPHONAUTES SP.
C71	1	7	0.6	OIKOPLEURA SP.
X60	1	1	0.1	INSECTA GENERAL

16MAY75 1500HR AREA 5 1 SET

NEARSHORE BEACH SEINES LOCKE BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	SE	MAX TEMP (C)	18.3	320	10.7	3.26
SPEED (KM/H)	16	MIN TEMP (C)	8.3	735	12.5	3.81
CLOUD (/10)	8	PRECIP. (MM)	0.0	1450	3.1	0.94
SEA LT SAL		SUN (HR)	7.9	2235	15.0	4.57

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/OR
968.	17	17

UNMARKED FISH

N= 50 AVERAGE LENGTH (MM) 39. S.E. 0.47
N= 50 AVERAGE WEIGHT (G) 0.51 S.E. 0.02
STOMACH CONTENT N= 20 AVERAGE WEIGHT (MG) 4.8 % 4.74

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	5	54	23	9	3	18	1	0	108

DIET ITEMS N= 5

CODE	# STOM	N	%	NAME
UY0	3	478	72.5	HARPACTICOID GENERAL
WW9	2	13	2.0	CALLIOPIIDAE
Y63	1	1	0.2	CHIRONOMIDAE LARVA
RK0	1	4	0.6	COPEPODA GENERAL
P00	1	1	0.2	NEMATODA GENERAL
RL0	4	99	15.0	CALANUS SP.
Y55	1	1	0.2	DIPTERA
Y59	2	4	0.6	CULICIDAE
Y60	1	1	0.2	CHIRONOMIDAE
D58	1	1	0.2	WOOD CHUNKS
RN0	1	4	0.6	CALANUS PLUMCHRUS
WU0	3	48	7.3	GAMMERIDEAE
X64	1	1	0.2	INSECTA ADULT
RR0	1	1	0.2	PSEUDOCALANUS MINUTUS
WW5	1	2	0.3	CUROPHIIDAE

GR/OR

N= 17 AVERAGE LENGTH (MM) 37. S.E. 0.50
N= 17 AVERAGE WEIGHT (G) 0.43 S.E. 0.02
STOMACH CONTENT N= 17 AVERAGE WEIGHT (MG) 4.4 % 5.03

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	17	118	29	9	3	1	0	0	158

DIET ITEMS N=17

CODE	# STOM	N	%	NAME
UY0	17	2543	93.3	HARPACTICOID GENERAL
WU0	11	28	1.0	GAMMERIDEAE
WL5	3	6	0.2	LEPTOCUMA SP.
WW5	8	27	1.0	CUROPHIIDAE
RK0	8	34	1.2	COPEPODA GENERAL
RN0	3	10	0.4	CALANUS PLUMCHRUS
UF7	2	10	0.4	SYLLIDAE
WX8	3	3	0.1	PLEUSTIDAE
Y63	1	1	0.0	CHIRONOMIDAE LARVA
Y58	1	2	0.1	DIPTERA PUPA
RP0	2	32	1.2	CALANUS GLACIALIS
WM1	1	3	0.1	EUDORELLA SP.
Y55	2	4	0.1	DIPTERA
YJ1	1	6	0.2	PORCELLANIDAE
UK0	1	7	0.3	CYCLOPOID GENERAL
WX5	2	2	0.1	EUSIRIDAE
VY2	1	1	0.0	CIRRIPEDIA CYPRID
WX2	3	5	0.2	AMPHIITHOIDAE
RG1	1	1	0.0	OSTRACODA GENERAL

PACIFIC SAND LANCE-AMMODYTES HEXAPTERUS CATCH 6.

KELP GREENLING-HEXAGRAMMOS DECAGRAMMUS CATCH 6.

16MAY75 1415HR AREA 15 1 SET

NEARSHORE BEACH SEINES PILOT BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	SE	MAX TEMP (C)	18.3	320	10.7	3.26
SPEED (KM/H)	5	MIN TEMP (C)	8.3	735	12.5	3.81
CLOUD (/10)	9	PRECIP. (MM)	0.0	1450	3.1	0.94
SEA RIPPLE		SUN (HR)	7.9	2235	15.0	4.57

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/OR
13600.	190	190

UNMARKED FISH

N= 50 AVERAGE LENGTH (MM) 38. S.E. 0.29
N= 50 AVERAGE WEIGHT (G) 0.43 S.E. 0.01
N= 20 AVERAGE WEIGHT (MG) 1.3 % 1.50

STOMACH CONTENT

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	5	42	24	8	0	0	2	1	77

DIET ITEMS N= 5 CODE	# STOM	N	%	NAME
Y59	1	1	0.3	CULICIDAE
Y55	1	1	0.3	DIPTERA
VY2	1	2	0.5	CIRRIPEDIA CYPRID
D60	1	1	0.3	EGGS GENERAL
RL0	2	7	1.8	CALANUS SP.
WW5	1	6	1.5	COROPHIIDAE
WX2	1	1	0.3	AMPHITHOIDAE
WW9	1	1	0.3	CALLIOPIIDAE
UY0	5	364	93.6	HARPACTICOID GENERAL
Y63	3	5	1.3	CHIRONOMIDAE LARVA

GR/OR

N= 19 AVERAGE LENGTH (MM) 37. S.E. 0.25
N= 19 AVERAGE WEIGHT (G) 0.41 S.E. 0.01
N= 19 AVERAGE WEIGHT (MG) 2.5 % 3.06

STOMACH CONTENT

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	19	117	36	4	0	0	0	0	157

DIET ITEMS N=19 CODE	# STOM	N	%	NAME
UY0	19	2845	96.6	HARPACTICOID GENERAL
WW5	10	26	0.9	COROPHIIDAE
WU0	6	10	0.3	GAMMERIDEAE
UK0	3	4	0.1	CYCLOPOID GENERAL
UZ9	5	13	0.4	PORCELLIDIDAE
Y63	11	25	0.8	CHIRONOMIDAE LARVA
RK0	2	7	0.2	COPEPODA GENERAL
WX2	4	7	0.2	AMPHITHOIDAE
AJ0	1	1	0.0	ARACHNOIDISCUS
Y60	2	3	0.1	CHIRONOMIDAE
WX5	1	1	0.0	EUSIRIDAE
X64	1	1	0.0	INSECTA ADULT
SW0	1	1	0.0	EURYTEMORA SP.
RN0	1	1	0.0	CALANUS PLUMCHRUS

21MAY75 1200HR AREA 2 DEPTH 4 3 SETS

NEARSHORE BEACH SEINES HAMMOND BAY

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION SE
SPEED (KM/H)
CLOUD (/10) 10
SEA RIPPLE

SUMMARY FOR DAY

MAX TEMP (C) 20.6
MIN TEMP (C) 7.2
PRECIP. (MM) 5.3
SUN (HR) 0.0

TIDES

PST	FEET	METERS
125	15.1	4.60
830	4.9	1.49
1510	12.6	3.84
2015	8.9	2.71

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/UR
1757.	7	7

UNMARKED FISH

N= 51 AVERAGE LENGTH (MM) 44. S.E. 1.12
N= 51 AVERAGE WEIGHT (G) 0.89 S.E. 0.09
N= 21 AVERAGE WEIGHT (MG) 8.0 % 4.54

STOMACH CONTENT
DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
6	6	9	5	1	10	0	8	39

DIET ITEMS N= 6

CODE	# STOM	N	%	NAME
UY0	5	89	36.9	HARPACTICOID GENERAL
AA9	3	38	15.6	CALLIOPIIDAE
C66	1	3	1.2	TUNICATA GENERAL
KL0	3	49	20.3	CALANUS SP.
KP0	2	11	4.6	CALANUS GLACIALIS
YH1	1	2	0.8	SHRIMP LARVA
Y55	2	3	1.2	DIPTERA
Y59	1	1	0.4	CULICIDAE
X64	1	2	0.8	INSECTA ADULT
RN0	3	35	14.5	CALANUS PLUMCHRUS
D68	1	3	1.2	EGGS FISH
WU0	1	1	0.4	GAMMERIDEAE
D56	1	1	0.4	SEAWEED GENERAL
WV6	1	1	0.4	STILIPEDIDAE
Y95	1	1	0.4	THYSANOPTERA
Z50	1	1	0.4	ARANEIDA

GR/UR

N= 7 AVERAGE LENGTH (MM) 42. S.E. 2.11
N= 7 AVERAGE WEIGHT (G) 0.69 S.E. 0.13
N= 7 AVERAGE WEIGHT (MG) 7.5 % 5.38

STOMACH CONTENT
DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
7	127	12	5	3	4	0	0	151

DIET ITEMS N= 7

CODE	# STOM	N	%	NAME
RN0	2	32	2.9	CALANUS PLUMCHRUS
YH1	2	6	0.5	SHRIMP LARVA
Y55	1	2	0.2	DIPTERA
Y63	1	2	0.2	CHIRONOMIDAE LARVA
UY0	7	962	87.0	HARPACTICOID GENERAL
Y58	1	1	0.1	DIPTERA PUPA
VY2	1	2	0.2	CIRRIPEDIA CYPRID
VY1	1	1	0.1	CIRRIPEDIA NAUPLIUS
AA0	1	1	0.1	MYSIDACEA GENERAL
WU0	7	37	3.3	GAMMERIDEAE
AX8	4	35	3.2	PLEUSTIDAE
AL5	1	4	0.4	LEPTOCUMA SP.
Y95	3	5	0.5	THYSANOPTERA
KK0	2	16	1.4	COPEPODA GENERAL

PACIFIC SAND LANCE-AMMODYTES HEXAPTERUS	CATCH	42.
SHINER PERCH-CYMATOGASTER AGGREGATA	CATCH	23.
BAY PIPEFISH-SYNGNATHUS GRISEOLINEATUS	CATCH	1.
CRESCENT GUNNEL-PHOLIS LAETA	CATCH	3.
KELP GREENLING-HEXAGRAMMUS DECAGRAMMUS	CATCH	77.
PACIFIC STAGHORN SCULPIN-LEPTOCOTTUS ARMATUS	CATCH	1.

GREAT SCULPIN-MYOXOCEPHALUS POLYACANTHOCEPHALU CATCH 1.

PENPOINT GUNNEL-APODICHTHYS FLAVIDUS CATCH 2.

21MAY75 1445HR AREA 4 2 SETS

NEARSHORE BEACH SEINES SNAKE ISLAND

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	E	MAX TEMP (C)	20.6	125	15.1	4.60
SPEED (KM/H)	6	MIN TEMP (C)	7.2	830	4.9	1.49
CLOUD (/10)	10	PRECIP. (MM)	5.3	1510	12.6	3.84
SEA RIPPLE		SUN (HR)	0.0	2015	8.9	2.71

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/UR
628.	4	4

UNMARKED FISH

N= 50 AVERAGE LENGTH (MM) 42. S.E. 0.83
N= 50 AVERAGE WEIGHT (G) 0.73 S.E. 0.05
N= 20 AVERAGE WEIGHT (MG) 7.4 % 5.07

STOMACH CONTENT

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	5	0	4	0	1	17	0	1	23

DIET ITEMS N= 5

CODE	# STOM	N	%	NAME
Y55	1	12	20.3	DIPTERA
096	4	20	33.9	PACIFIC HERRING-CLUPEA HAR
VC0	3	8	13.6	HARPACTICUS UNIREMIS
RN0	3	14	23.7	CALANUS PLUMCHRUS
WU0	2	2	3.4	GAMMERIDEAE
X64	1	1	1.7	INSECTA ADULT
RP0	1	2	3.4	CALANUS GLACIALIS

GR/UR

N= 4 AVERAGE LENGTH (MM) 37. S.E. 1.11
N= 4 AVERAGE WEIGHT (G) 0.46 S.E. 0.05
N= 4 AVERAGE WEIGHT (MG) 6.9 % 7.47

STOMACH CONTENT

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	4	6	8	5	5	14	0	0	37

DIET ITEMS N= 4

CODE	# STOM	N	%	NAME
X64	1	1	0.6	INSECTA ADULT
Y63	2	3	1.9	CHIRONOMIDAE LARVA
RN0	4	64	41.6	CALANUS PLUMCHRUS
UY0	4	37	24.0	HARPACTICOID GENERAL
WX8	2	3	1.9	PLEUSTIDAE
WX5	3	5	3.2	EUSIRIDAE
XG9	3	11	7.1	PARATHEMISTO PACIFICA
WU0	2	3	1.9	GAMMERIDEAE
Y55	1	5	3.2	DIPTERA
Y58	1	1	0.6	DIPTERA PUPA
SN0	1	3	1.9	CENTROPAGES ABDOMINALIS
YH1	4	18	11.7	SHRIMP LARVA

SHINER PERCH-CYMATOGASTER AGGREGATA CATCH 100.

PILE PERCH-RHACOCHILUS VACCA CATCH 1.

KELP PERCH-BRACHYISTIUS FRENATUS CATCH 2.

22MAY75 1300HR AREA 8 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES FALSE NARROWS

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	SE	MAX TEMP (C)	14.4	210	15.0	4.57
SPEED (KM/H)		MIN TEMP (C)	8.9	910	3.6	1.10
CLOUD (/10)	10	PRECIP. (MM)	0.8	1610	13.6	4.15
SEA RIPPLE		SUN (HR)	1.5	2105	9.7	2.96

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/OR
720.	8	8

UNMARKED FISH

N= 50 AVERAGE LENGTH (MM) 40. S.E. 0.55
N= 50 AVERAGE WEIGHT (G) 0.54 S.E. 0.03
N= 20 AVERAGE WEIGHT (MG) 5.7 % 5.24

STOMACH CONTENT

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	5	2	18	8	3	12	0	0	42

DIET ITEMS N= 5

CODE	# STOM	N	%	NAME
UY0	4	133	60.7	HARPACTICOID GENERAL
RN0	4	36	16.4	CALANUS PLUMCHRUS
XM6	3	25	11.4	EUPHAUSIACEA POST-NAUPLIAR
YH1	1	4	1.8	SHRIMP LARVA
RK0	2	5	2.3	COPEPODA GENERAL
Z40	1	1	0.5	ARACHNIDA GENERAL
Y60	2	3	1.4	CHIRONOMIDAE
Y55	2	2	0.9	DIPTERA
RL0	2	7	3.2	CALANUS SP.
WU0	1	1	0.5	GAMMERIDEAE
XS2	1	2	0.9	CRAB MEGALOPA

GR/OR

N= 8 AVERAGE LENGTH (MM) 40. S.E. 1.03
N= 8 AVERAGE WEIGHT (G) 0.58 S.E. 0.08
N= 8 AVERAGE WEIGHT (MG) 6.4 % 5.56

STOMACH CONTENT

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	8	2	27	9	2	5	0	0	44

DIET ITEMS N= 8

CODE	# STOM	N	%	NAME
UY0	8	269	64.7	HARPACTICOID GENERAL
YH1	4	13	3.1	SHRIMP LARVA
WU0	3	4	1.0	GAMMERIDEAE
WX8	4	10	2.4	PLEUSTIDAE
SN0	2	3	0.7	CENTROPAGES ABDOMINALIS
RK0	6	42	10.1	COPEPODA GENERAL
RN0	7	48	11.5	CALANUS PLUMCHRUS
VY1	1	2	0.5	CIRRIPEDIA NAUPLIUS
Y55	2	2	0.5	DIPTERA
XM0	5	20	4.8	EUPHAUSIACEA GENERAL
Y58	1	1	0.2	DIPTERA PUPA
Y63	2	2	0.5	CHIRONOMIDAE LARVA

22MAY75 1100HR AREA 9 DEPTH 2 1 SET

NEARSHORE BEACH SEINES BOAT HARBOR

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY	
WIND DIRECTION	CLM	MAX TEMP (C)	14.4
SPEED (KM/H)		MIN TEMP (C)	8.9
CLOUD (/10)	8	PRECIP. (MM)	0.8
SEA	CALM	SUN (HR)	1.5

TIDES

PST	FEET	METERS
210	15.0	4.57
910	3.6	1.10
1610	13.6	4.15
2105	9.7	2.96

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/UR
158.	1	1

UNMARKED FISH

N= 50 AVERAGE LENGTH (MM) 51. S.E. 1.11
N= 50 AVERAGE WEIGHT (G) 1.33 S.E. 0.09
N= 20 AVERAGE WEIGHT (MG) 8.0 % 3.01

STOMACH CONTENT DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
5	72	9	17	0	0	0	1	99

DIET ITEMS N= 5

CODE	# STOM	N	%	NAME
C71	2	139	27.4	OIKOPLEURA SP.
001	1	3	0.6	LARVAL FISHES
Y60	3	6	1.2	CHIRONOMIDAE
Y64	1	1	0.2	CHIRONOMIDAE PUPA
YH1	2	4	0.8	SHRIMP LARVA
UY0	5	221	43.5	HARPACTICOID GENERAL
Z50	1	1	0.2	ARANEIDA
SF0	2	3	0.6	AETIDIUS ARMATUS
WU0	2	6	1.2	GAMMERIDEAE
VY2	1	6	1.2	CIRRIPEDIA CYPRID
XS1	2	13	2.6	CRAB ZOEA
PR3	2	27	5.3	POLYCHAETA JUVENILE
SN0	2	16	3.1	CENTROPAGES ABDOMINALIS
D68	1	2	0.4	EGGS FISH
RK2	1	3	0.6	COPEPODA NAUPLIUS
XM2	1	1	0.2	EUPHAUSIACEA NAUPLIUS
WW9	3	41	8.1	CALLIOPIIDAE
D57	2	11	2.2	TERRESTRIAL PLANTS
X64	2	2	0.4	INSECTA ADULT
SD0	1	1	0.2	ACARTIA LONGIREMIS
Y63	1	1	0.2	CHIRONOMIDAE LARVA

GR/UR

N= 1 AVERAGE LENGTH (MM) 54. S.E. 0.00
N= 1 AVERAGE WEIGHT (G) 1.46 S.E. 0.00
N= 1 AVERAGE WEIGHT (MG) 18.6 % 6.37

STOMACH CONTENT DIET BY SIZE (MM)

N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
1	8	41	88	11	0	0	0	148

DIET ITEMS N= 1

CODE	# STOM	N	%	NAME
WX8	1	88	56.4	PLEUSTIDAE
SN0	1	20	12.8	CENTROPAGES ABDOMINALIS
UY0	1	18	11.5	HARPACTICOID GENERAL
X64	1	1	0.6	INSECTA ADULT
RM0	1	10	6.4	CALANUS PACIFICUS
QX0	1	12	7.7	ERRANTIA
YH1	1	5	3.2	SHRIMP LARVA
UH0	1	1	0.6	EPILABIDOCERA AMPHITRITES
XG9	1	1	0.6	PARATHEMISTO PACIFICA

PADDED SCULPIN-ARTEDIUS FENESTRALIS	CATCH	3.
SADDLEBACK GUNNEL-PHOLIS ORNATA	CATCH	2.
SPECKLED SANDDAB-CITHARICHTHYS STIGMAEUS	CATCH	1.
COHO SALMON-ONCORHYNCHUS KISUTCH	CATCH	1.
CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA	CATCH	1.
KELP GREENLING-HEXAGRAMMOS DECAGRAMMUS	CATCH	1.

THREESPINE STICKLEBACK-GASTEROSTEUS ACULEATUS	CATCH	2.
WHITE SPOTTED GREENLING-HEXAGRAMMOS STELLERI	CATCH	1.
PACIFIC STAGHORN SCULPIN-LEPTOCOTTUS ARMATUS	CATCH	5.
PLAINFIN MIDSHIPMAN-PORICHTHYS NOTATUS	CATCH	1.

27MAY75 1215HR AREA 5 1 SET

NEARSHORE BEACH SEINES LOCKE BAY

WEATHER CONDITIONS AT SET TIME

WIND DIRECTION	E
SPEED (KM/H)	6
CLOUD (/10)	2
SEA RIPPLE	

SUMMARY FOR DAY

MAX TEMP (C)	18.9	
MIN TEMP (C)	5.9	
PRECIP. (MM)	0.0	
SUN (HR)	11.3	

TIDES

PST	FEET	METERS
55	10.7	3.26
530	13.5	4.11
1240	2.0	0.61
2020	15.1	4.60

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/OR
3060.	23	23

UNMARKED FISH

N= 50 AVERAGE LENGTH (MM) 48. S.E. 0.70
N= 50 AVERAGE WEIGHT (G) 1.01 S.E. 0.05
STOMACH CONTENT N= 20 AVERAGE WEIGHT (MG) 4.6 % 2.27

DIET BY SIZE (MM)	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
N	5	168	38	8	0	0	0	215

DIET ITEMS N= 5 CODE	# STOM	N	%	NAME
UY0	5	965	99.0	HARPACTICOID GENERAL
RN0	1	2	0.2	CALANUS PLUMCHRUS
WJ0	1	2	0.2	CUMACEA GENERAL
D56	1	2	0.2	SEAWEED GENERAL
WU0	1	1	0.1	GAMMERIDEAE
Y63	2	3	0.3	CHIRONOMIDAE LARVA

GR/OR

N= 8 AVERAGE LENGTH (MM) 47. S.E. 1.10
N= 8 AVERAGE WEIGHT (G) 0.99 S.E. 0.06
STOMACH CONTENT N= 8 AVERAGE WEIGHT (MG) 12.6 % 6.35

DIET BY SIZE (MM)	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
N	8	730	176	33	3	1	0	834

DIET ITEMS N= 8 CODE	# STOM	N	%	NAME
UY0	8	7517	99.1	HARPACTICOID GENERAL
VY1	1	3	0.0	CIRRIPEDIA NAUPLIUS
Y63	6	14	0.2	CHIRONOMIDAE LARVA
Y58	3	3	0.0	DIPTERA PUPA
KK0	2	19	0.3	COPEPODA GENERAL
RN0	1	4	0.1	CALANUS PLUMCHRUS
A70	1	1	0.0	CYPHONAUTES SP.
WL5	3	10	0.1	LEPTOCUMA SP.
WU0	2	2	0.0	GAMMERIDEAE
Y55	2	12	0.2	DIPTERA

SHINER PERCH-CYMATOGASTER AGGREGATA	CATCH	4.
PACIFIC SAND LANCE-AMMODYTES HEXAPTERUS	CATCH	1.

27MAY75 1320HR AREA 15 1 SET

NEARSHORE BEACH SEINES PILOT BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY	
WIND DIRECTION		MAX TEMP (C)	18.9
SPEED (KM/H)	3	MIN TEMP (C)	3.9
CLOUD (/10)	1	PRECIP. (MM)	0.0
SEA RIPPLE		SUN (HR)	11.3

TIDES

PST	FEET	METERS
55	10.7	3.26
530	13.5	4.11
1240	2.0	0.61
2020	15.1	4.60

CHUM SALMON-ONCORHYNCHUS KETA

NOTE: A FEW CHUM WERE OBSERVED, THE SMALL CATCH WAS RELEASED.

29MAY75 1400HR AREA 16 DEPTH 2 1 SET

NEARSHORE BEACH SEINES DUKE POINT

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	22.8	235	10.3	3.14
SPEED (KM/H)	8-11	MIN TEMP (C)	7.2	655	12.2	3.72
CLOUD (/10)	2	PRECIP. (MM)	0.0	1400	3.5	1.07
SEA	CHOP	SUN (HR)	12.0	2130	14.6	4.45

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GR/OR
525.	4	4

UNMARKED FISH

N= 50 AVERAGE LENGTH (MM) 37. S.E. 0.31
N= 50 AVERAGE WEIGHT (G) 0.45 S.E. 0.01
STOMACH CONTENT N= 20 AVERAGE WEIGHT (MG) 1.7 % 1.89

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	5	43	13	2	1	0	0	0	59

DIET ITEMS N= 5

CODE	# STOM	N	%	NAME
WI0	1	1	0.3	TANAIDACEAE
UY0	5	206	69.8	HARPACTICOID GENERAL
WW9	3	6	2.0	CALLIOPIIDAE
C71	2	28	9.4	OIKOPLEURA SP.
XS1	1	2	0.7	CRAB ZOEA
Y63	2	3	1.0	CHIRONOMIDAE LARVA
VY2	2	4	1.3	CIRRIPEDIA CYPRID
WU0	2	3	1.0	GAMMERIDEAE
WJ0	1	4	1.3	CUMACEA GENERAL
RR0	1	7	2.3	PSEUDOCALANUS MINUTUS
SY0	2	24	8.1	EURYTEMORA HIRUNDOIDES
XG9	2	2	0.7	PARATHEMISTO PACIFICA
Y60	1	2	0.7	CHIRONOMIDAE
X64	1	2	0.7	INSECTA ADULT
A90	1	1	0.3	CHAETOGNATHA GENERAL
A70	1	1	0.3	CYPHONAUTES SP.

GR/OR

N= 4 AVERAGE LENGTH (MM) 36. S.E. 1.03
N= 4 AVERAGE WEIGHT (G) 0.44 S.E. 0.03
STOMACH CONTENT N= 4 AVERAGE WEIGHT (MG) 3.6 % 4.04

DIET BY SIZE (MM)	N	<1.0	-1.5	-2.5	-4.0	-8.0	-15.	>15	SUM
	4	75	47	7	1	0	0	0	128

DIET ITEMS N= 4

CODE	# STOM	N	%	NAME
UY0	4	491	94.8	HARPACTICOID GENERAL
C71	1	3	0.6	OIKOPLEURA SP.
ZK3	1	2	0.4	GASTROPODA EGG CASE
WU0	3	7	1.4	GAMMERIDEAE
GF7	1	1	0.2	SYLLIDAE
Y63	2	2	0.4	CHIRONOMIDAE LARVA
Y55	3	4	0.8	DIPTERA
WW5	1	1	0.2	COROPHIIDAE
WX2	2	2	0.4	AMPHITHOIDAE
WL5	1	2	0.4	LEPTOCUMA SP.
001	1	1	0.2	LARVAL FISHES
VY2	1	1	0.2	CIRRIPEDIA CYPRID
WX8	1	1	0.2	PLEUSTIDAE

13APR76 1400HR AREA 2 DEPTH 2

DIP NETS HAMMOND BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	13.9	405	15.2	4.63
SPEED (KM/H)	2	MIN TEMP (C)	-0.6	1040	4.6	1.40
CLOUD (/10)		PRECIP. (MM)	0.0	1650	14.1	4.30
SEA	CALM	SUN (HR)	11.6	2235	7.2	2.19

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK RED
272.	1	1

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.26
	N= 50	AVERAGE WEIGHT (G)	0.40	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.7	%	2.13
RED					
	N= 1	AVERAGE LENGTH (MM)	35.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.32	S.E.	0.00

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 22.

	N= 22	AVERAGE LENGTH (MM)	38.	S.E.	0.51
	N= 22	AVERAGE WEIGHT (G)	0.44	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.6	%	1.82

20APR76 1145HR AREA 1 DEPTH 2

DIP NETS BIOLOGICAL STATION

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	10.6	430	10.1	3.08
SPEED (KM/H)	3- 5	MIN TEMP (C)	3.3	855	11.9	3.63
CLOUD (/10)	4	PRECIP. (MM)	4.8	1605	4.2	1.28
SEA	RIPPLE	SUN (HR)	10.2	2355	14.6	4.45

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK RED
165.	2	2

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.22
	N= 50	AVERAGE WEIGHT (G)	0.36	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.0	%	1.39
RED					
	N= 2	AVERAGE LENGTH (MM)	36.	S.E.	1.00
	N= 2	AVERAGE WEIGHT (G)	0.33	S.E.	0.03

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 27.

	N= 27	AVERAGE LENGTH (MM)	34.	S.E.	0.22
	N= 27	AVERAGE WEIGHT (G)	0.27	S.E.	-0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	0.5	%	1.02

20APR76 1115HR AREA 2 DEPTH 2

DIP NETS HAMMOND BAY

WEATHER CONDITIONS

AT SET TIME	
WIND DIRECTION	NW
SPEED (KM/H)	3- 5
CLOUD (/10)	6
SEA	RIPPLE

SUMMARY FOR DAY

MAX TEMP (C)	10.6
MIN TEMP (C)	3.3
PRECIP. (MM)	4.8
SUN (HR)	10.2

TIDES

PST	FEET	METERS
430	10.1	3.08
855	11.9	3.63
1605	4.2	1.28
2355	14.6	4.45

CHUM SALMON-ONCORHYNCHUS KETA — CATCH 68.

N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.21
N= 50	AVERAGE WEIGHT (G)	0.35	S.E.	0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	0.6	%	0.86

PINK SALMON-ONCORHYNCHUS GORBUSCHA — CATCH 42.

N= 42	AVERAGE LENGTH (MM)	33.	S.E.	0.26
N= 42	AVERAGE WEIGHT (G)	0.26	S.E.	0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	0.6	%	1.15

20APR76 930HR AREA 17 DEPTH 2

DIP NETS MARK BAY

WEATHER CONDITIONS

AT SET TIME	
WIND DIRECTION	NW
SPEED (KM/H)	2- 8
CLOUD (/10)	7
SEA	CALM

SUMMARY FOR DAY

MAX TEMP (C)	10.6
MIN TEMP (C)	3.3
PRECIP. (MM)	4.8
SUN (HR)	10.2

TIDES

PST	FEET	METERS
430	10.1	3.08
855	11.9	3.63
1605	4.2	1.28
2355	14.6	4.45

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN	RED
383.	4	3	1

UNMARKED FISH

N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.16
N= 50	AVERAGE WEIGHT (G)	0.40	S.E.	0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	1.0	%	1.31

GREEN

N= 3	AVERAGE LENGTH (MM)	34.	S.E.	0.33
N= 3	AVERAGE WEIGHT (G)	0.30	S.E.	0.02

RED

N= 1	AVERAGE LENGTH (MM)	31.	S.E.	0.00
N= 1	AVERAGE WEIGHT (G)	0.24	S.E.	0.00

21APR76 930HR AREA 16 DEPTH 2

DIP NETS DUKE POINT

WEATHER CONDITIONS

AT SET TIME

WIND DIRECTION

SPEED (KM/H)

CLOUD (/10) 3

SEA CALM

SUMMARY FOR DAY

MAX TEMP (C) 10.6

MIN TEMP (C) -0.6

PRECIP. (MM) 0.0

SUN (HR) 7.8

TIDES

PST	FEET	METERS
600	9.6	2.93
1010	11.1	3.38
1710	5.2	1.58

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN	RED
835.	21	3	18

UNMARKED FISH	N= 50	AVERAGE LENGTH (MM)	38.	S.E.	0.17
	N= 50	AVERAGE WEIGHT (G)	0.44	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	0.2	%	0.23
GREEN	N= 3	AVERAGE LENGTH (MM)	36.	S.E.	0.88
	N= 3	AVERAGE WEIGHT (G)	0.33	S.E.	0.01
RED	N= 18	AVERAGE LENGTH (MM)	38.	S.E.	0.21
	N= 18	AVERAGE WEIGHT (G)	0.41	S.E.	0.01

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 5.

	N= 5	AVERAGE LENGTH (MM)	43.	S.E.	1.12
	N= 5	AVERAGE WEIGHT (G)	0.59	S.E.	-0.00
STOMACH CONTENT	N= 5	AVERAGE WEIGHT (MG)	0.0	%	0.01

22APR76 900HR AREA 1 DEPTH 2 1 SET

DIP NETS BIOLOGICAL STATION

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION CLM
SPEED (KM/H)
CLOUD (/10)
SEA CALM

SUMMARY FOR DAY

MAX TEMP (C)	12.8	
MIN TEMP (C)	0.0	
PRECIP. (MM)	0.0	
SUN (HR)	6.9	

TIDES

PST	FEET	METERS
45	14.3	4.36
720	8.8	2.68
1155	10.7	3.26
1815	6.2	1.89

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN	RED
644.	5	1	4

UNMARKED FISH	N= 50	AVERAGE LENGTH (MM)	38.	S.E.	0.39
	N= 50	AVERAGE WEIGHT (G)	0.47	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	2.4	%	2.61
GREEN	N= 1	AVERAGE LENGTH (MM)	36.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.39	S.E.	0.00
RED	N= 4	AVERAGE LENGTH (MM)	36.	S.E.	0.48
	N= 4	AVERAGE WEIGHT (G)	0.41	S.E.	0.02
PINK SALMON-ONCORHYNCHUS GORBUSCHA				CATCH	392.
	N= 50	AVERAGE LENGTH (MM)	35.	S.E.	0.25
	N= 50	AVERAGE WEIGHT (G)	0.35	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	0.8	%	1.21

22APR76 930HR AREA 2 DEPTH 2

DIP NETS HAMMOND BAY

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION CLM
SPEED (KM/H)
CLOUD (/10) 1
SEA CALM

SUMMARY FOR DAY

MAX TEMP (C)	12.8	
MIN TEMP (C)	0.0	
PRECIP. (MM)	0.0	
SUN (HR)	6.9	

TIDES

PST	FEET	METERS
45	14.3	4.36
720	8.8	2.68
1155	10.7	3.26
1815	6.2	1.89

CHUM SALMON-ONCORHYNCHUS KETA				CATCH	52.
	N= 50	AVERAGE LENGTH (MM)	38.	S.E.	0.50
	N= 50	AVERAGE WEIGHT (G)	0.54	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	2.2	%	2.04
PINK SALMON-ONCORHYNCHUS GORBUSCHA				CATCH	263.
	N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.41
	N= 50	AVERAGE WEIGHT (G)	0.38	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.0	%	1.32

27APR76 1000HR AREA 16 DEPTH 2

DIP NETS DUKE POINT

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	22.2	345	13.5	4.11
SPEED (KM/H)		MIN TEMP (C)	4.4	1025	5.0	1.52
CLOUD (/10)		PRECIP. (MM)	0.0	1720	13.1	3.99
SEA	CALM	SUN (HR)	12.4	2235	9.0	2.74

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN	RED
559.	8	3	5

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	40.	S.E.	0.53
	N= 50	AVERAGE WEIGHT (G)	0.66	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	5.1	%	3.86
GREEN					
	N= 3	AVERAGE LENGTH (MM)	35.	S.E.	0.88
	N= 3	AVERAGE WEIGHT (G)	0.40	S.E.	0.04
RED					
	N= 5	AVERAGE LENGTH (MM)	39.	S.E.	0.58
	N= 5	AVERAGE WEIGHT (G)	0.61	S.E.	0.04

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 156.

	N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.37
	N= 50	AVERAGE WEIGHT (G)	0.42	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.9	%	2.32

28APR76 1000HR AREA 17 DEPTH 2

DIP NETS MARK BAY

WEATHER CONDITIONS AT SET TIME
WIND DIRECTION CLM
SPEED (KM/H)
CLOUD (/10)
SEA CALM

SUMMARY FOR DAY
MAX TEMP (C) 21.7
MIN TEMP (C) 3.9
PRECIP. (MM) 0.0
SUN (HR) 11.9

TIDES

PST	FEET	METERS
415	13.5	4.11
1055	4.4	1.34
1750	13.4	4.08
2300	9.4	2.87

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN	RED
350.	6	5	1

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)	37.	S.E.	0.34
	N= 50	AVERAGE WEIGHT (G)	0.38	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.8	%	2.43

GREEN

	N= 5	AVERAGE LENGTH (MM)	35.	S.E.	0.20
	N= 5	AVERAGE WEIGHT (G)	0.28	S.E.	0.01

RED

	N= 1	AVERAGE LENGTH (MM)	38.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.43	S.E.	0.00

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 50.

	N= 50	AVERAGE LENGTH (MM)	34.	S.E.	0.26
	N= 50	AVERAGE WEIGHT (G)	0.29	S.E.	-0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.1	%	1.98

15APR76 800HR AREA 16 DEPTH 2 1 SET

NEARSHORE BEACH SEINES DUKE POINT

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	12.2	510	15.4	4.69
SPEED (KM/H)	48	MIN TEMP (C)	0.0	1200	2.4	0.73
CLOUD (/10)		PRECIP. (MM)	0.0	1855	15.0	4.57
SEA RIPPLE		SUN (HR)	8.6			

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK RED
428.	2	2

UNMARKED FISH	N= 50	AVERAGE LENGTH (MM)	37.	S.E.	0.29
	N= 50	AVERAGE WEIGHT (G)	0.49	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	2.0	%	2.04
RED					
	N= 2	AVERAGE LENGTH (MM)	35.	S.E.	0.50
	N= 2	AVERAGE WEIGHT (G)	0.35	S.E.	0.03

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 1.

	N= 1	AVERAGE LENGTH (MM)	39.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.55	S.E.	0.00

STICKLEBACKS-FAMILY GASTEROSTEIDAE CATCH 6.

SCULPINS-FAMILY COTTIDAE CATCH 4.

22APR76 945HR AREA 4 DEPTH 2 1 SET

NEARSHORE BEACH SEINES SNAKE ISLAND

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	12.8	45	14.3	4.36
SPEED (KM/H)	3- 8	MIN TEMP (C)	0.0	720	8.8	2.68
CLOUD (/10)	2	PRECIP. (MM)	0.0	1155	10.7	3.26
SEA LT RIP		SUN (HR)	6.9	1815	6.2	1.89

CHUM SALMON-ONCORHYNCHUS KETA CATCH 189.

	N= 50	AVERAGE LENGTH (MM)	37.	S.E.	0.25
	N= 50	AVERAGE WEIGHT (G)	0.40	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	1.2	%	1.50

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 581.

	N= 44	AVERAGE LENGTH (MM)	33.	S.E.	0.27
	N= 44	AVERAGE WEIGHT (G)	0.26	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	0.6	%	1.15

22APR76 1145HR AREA 5 1 SET

NEARSHORE BEACH SEINES LOCKE BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NE	MAX TEMP (C)	12.8	45	14.3	4.36
SPEED (KM/H)	2- 3	MIN TEMP (C)	0.0	720	8.8	2.68
CLOUD (/10)	4	PRECIP. (MM)	0.0	1155	10.7	3.26
SEA LT RIP		SUN (HR)	6.9	1815	6.2	1.89

CHUM SALMON-ONCORHYNCHUS KETA					CATCH	74.
	N= 50	AVERAGE LENGTH	(MM)	37.	S.E.	0.24
	N= 50	AVERAGE WEIGHT	(G)	0.33	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT	(MG)	1.6	%	2.42
PINK SALMON-ONCORHYNCHUS GORBUSCHA					CATCH	395.
	N= 50	AVERAGE LENGTH	(MM)	35.	S.E.	0.28
	N= 50	AVERAGE WEIGHT	(G)	0.26	S.E.	0.00

22APR76 1315HR AREA 6 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES DESCANSO BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	12.8	45	14.3	4.36
SPEED (KM/H)	3- 5	MIN TEMP (C)	0.0	720	8.8	2.68
CLOUD (/10)	7	PRECIP. (MM)	0.0	1155	10.7	3.26
SEA LT RIP		SUN (HR)	6.9	1815	6.2	1.89

CHUM SALMON-ONCORHYNCHUS KETA					CATCH	130.
	N= 50	AVERAGE LENGTH	(MM)	37.	S.E.	0.15
	N= 50	AVERAGE WEIGHT	(G)	0.31	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT	(MG)	1.6	%	2.58
PINK SALMON-ONCORHYNCHUS GORBUSCHA					CATCH	4.
	N= 4	AVERAGE WEIGHT	(G)	3.34	S.E.	3.34
STOMACH CONTENT	N= 4	AVERAGE WEIGHT	(MG)	2.0	%	0.30
STICKLEBACKS-FAMILY GASTEROSTEIDAE					CATCH	2.

28APR76 1530HR AREA 1 DEPTH 2 1 SET

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION CLM
SPEED (KM/H)
CLOUD (/10)
SEA CALM

SUMMARY FOR DAY

MAX TEMP (C)	21.7	
MIN TEMP (C)	3.9	
PRECIP. (MM)	0.0	
SUN (HR)	11.9	

TIDES

PST	FEET	METERS
415	13.5	4.11
1055	4.4	1.34
1750	13.4	4.08
2300	9.4	2.87

CHUM SALMON-ONCORHYNCHUS KETA — CATCH 187.

N= 50	AVERAGE LENGTH (MM)	40.	S.E.	0.56
N= 50	AVERAGE WEIGHT (G)	0.55	S.E.	-0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	3.3	%	3.00

PINK SALMON-ONCORHYNCHUS GORBUSCHA — CATCH 2074.

N= 50	AVERAGE LENGTH (MM)	35.	S.E.	0.32
N= 50	AVERAGE WEIGHT (G)	0.35	S.E.	0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	1.4	%	2.07

28APR76 1300HR AREA 2 1 SET

NEARSHORE BEACH SEINES HAMMOND BAY

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION CLM
SPEED (KM/H)
CLOUD (/10)
SEA CALM

SUMMARY FOR DAY

MAX TEMP (C)	21.7	
MIN TEMP (C)	3.9	
PRECIP. (MM)	0.0	
SUN (HR)	11.9	

TIDES

PST	FEET	METERS
415	13.5	4.11
1055	4.4	1.34
1750	13.4	4.08
2300	9.4	2.87

CHUM SALMON-ONCORHYNCHUS KETA — CATCH 103.

N= 50	AVERAGE LENGTH (MM)	42.	S.E.	0.77
N= 50	AVERAGE WEIGHT (G)	0.73	S.E.	0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	4.0	%	2.74

PINK SALMON-ONCORHYNCHUS GORBUSCHA — CATCH 689.

N= 50	AVERAGE LENGTH (MM)	37.	S.E.	0.42
N= 50	AVERAGE WEIGHT (G)	0.39	S.E.	0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	1.7	%	2.18

29APR76 1000HR AREA 4 1 SET

NEARSHORE BEACH SEINES SNAKE ISLAND

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION CLM
SPEED (KM/H)
CLOUD (/10)
SEA CALM

SUMMARY FOR DAY

MAX TEMP (C)	22.8	
MIN TEMP (C)	4.4	
PRECIP. (MM)	0.0	
SUN (HR)	13.2	

TIDES

PST	FEET	METERS
435	13.5	4.11
1125	3.9	1.19
1835	13.7	4.18
2350	9.8	2.99

NO CATCH

29APR76 1200HR AREA 5 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES LOCKE BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	22.8	435	13.5	4.11
SPEED (KM/H)		MIN TEMP (C)	4.4	1125	3.9	1.19
CLOUD (/10)		PRECIP. (MM)	0.0	1835	13.7	4.18
SEA LT RIP		SUN (HR)	13.2	2350	9.8	2.99

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
702.	1	1

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)	35.	S.E.	0.29
	N= 50	AVERAGE WEIGHT (G)	0.37	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	2.2	%	2.97

GREEN

	N= 1	AVERAGE LENGTH (MM)	36.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.37	S.E.	0.00

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 103.

	N= 50	AVERAGE LENGTH (MM)	34.	S.E.	0.32
	N= 50	AVERAGE WEIGHT (G)	0.32	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	1.5	%	2.34

29APR76 1330HR AREA 6 DEPTH 2 1 SET

NEARSHORE BEACH SEINES DESCANSO BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	22.8	435	13.5	4.11
SPEED (KM/H)	5	MIN TEMP (C)	4.4	1125	3.9	1.19
CLOUD (/10)		PRECIP. (MM)	0.0	1835	13.7	4.18
SEA LT RIP		SUN (HR)	13.2	2350	9.8	2.99

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
2718.	37	37

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.23
	N= 50	AVERAGE WEIGHT (G)	0.36	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	1.6	%	2.22

GREEN

	N= 37	AVERAGE LENGTH (MM)	35.	S.E.	0.16
	N= 37	AVERAGE WEIGHT (G)	0.32	S.E.	0.01

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 126.

	N= 50	AVERAGE LENGTH (MM)	35.	S.E.	0.27
	N= 50	AVERAGE WEIGHT (G)	0.32	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	1.4	%	2.19

3MAY76 715HR AREA 1 DEPTH 2 1 SET

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS

		SUMMARY FOR DAY		TIDES PST	FEET	METERS
AT SET TIME						
WIND DIRECTION	CLM	MAX TEMP (C)	16.7	150	10.6	3.23
SPEED (KM/H)		MIN TEMP (C)	7.8	630	12.8	3.90
CLOUD (/10)	10	PRECIP. (MM)	0.5	1350	3.2	0.98
SEA	CALM	SUN (HR)	7.6	2120	14.3	4.36

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
795.	9	9

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	40.	S.E.	0.68
	N= 50	AVERAGE WEIGHT (G)	0.72	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	5.1	%	3.58
GREEN					
	N= 12	AVERAGE LENGTH (MM)	37.	S.E.	0.45
	N= 12	AVERAGE WEIGHT (G)	0.40	S.E.	0.02

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 1320.

	N= 50	AVERAGE LENGTH (MM)	38.	S.E.	0.34
	N= 50	AVERAGE WEIGHT (G)	0.45	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	3.5	%	3.89

NOTE: THE GREEN MARKS FROM THIS SAMPLE AND THE FOLLOWING SAMPLE WERE LUMPED FOR STOMACH ANALYSIS.

3MAY76 815HR AREA 1 DEPTH 2

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS

		SUMMARY FOR DAY		TIDES PST	FEET	METERS
AT SET TIME						
WIND DIRECTION	CLM	MAX TEMP (C)	16.7	150	10.6	3.23
SPEED (KM/H)		MIN TEMP (C)	7.8	630	12.8	3.90
CLOUD (/10)	10	PRECIP. (MM)	0.5	1350	3.2	0.98
SEA	CALM	SUN (HR)	7.6	2120	14.3	4.36

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN	RED
286.	4	3	1

NOTE: THE GREEN MARKS WERE LUMPED WITH PRECEEDING SAMPLE FOR STOMACH ANALYSIS.

3MAY76 1345HR AREA 17 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES MARK BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	16.7	150	10.6	3.23
SPEED (KM/H)		MIN TEMP (C)	7.8	630	12.8	3.90
CLOUD (/10)	3	PRECIP. (MM)	0.5	1350	3.2	0.98
SEA	CALM	SUN (HR)	7.6	2120	14.3	4.36

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
1868.	14	14

UNMARKED FISH	N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.19
	N= 50	AVERAGE WEIGHT (G)	0.41	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	3.1	%	3.72
GREEN					
	N= 14	AVERAGE LENGTH (MM)	35.	S.E.	0.27
	N= 14	AVERAGE WEIGHT (G)	0.36	S.E.	0.01

SCULPINS-FAMILY COTTIDAE

4MAY76 945HR AREA 4 DEPTH 2 1 SET

NEARSHORE BEACH SEINES SNAKE ISLAND

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	E	MAX TEMP (C)	11.7	250	10.7	3.26
SPEED (KM/H)	16	MIN TEMP (C)	7.8	705	12.4	3.78
CLOUD (/10)	10	PRECIP. (MM)	3.3	1425	3.5	1.07
SEA LT RIP		SUN (HR)	0.4	2210	14.4	4.39

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN
588.	15	8	7

UNMARKED FISH	N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.32
	N= 50	AVERAGE WEIGHT (G)	0.33	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	1.6	%	2.42
BLUE					
	N= 8	AVERAGE LENGTH (MM)	35.	S.E.	0.18
	N= 8	AVERAGE WEIGHT (G)	0.28	S.E.	0.01
GREEN					
	N= 7	AVERAGE LENGTH (MM)	36.	S.E.	0.40
	N= 7	AVERAGE WEIGHT (G)	0.36	S.E.	0.02

PINK SALMON-ONCORHYNCHUS GORBUSCHA				CATCH	5.
	N= 5	AVERAGE WEIGHT (G)	0.46	S.E.	0.46
STOMACH CONTENT	N= 5	AVERAGE WEIGHT (MG)	1.2	%	1.30

CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA CATCH 1.

SCULPINS-FAMILY COTTIDAE CATCH 2.

4MAY76 1100HR AREA 5 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES LOCKE BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	E	MAX TEMP (C)	11.7	250	10.7	3.26
SPEED (KM/H)	16	MIN TEMP (C)	7.8	705	12.4	3.78
CLOUD (/10)	10	PRECIP. (MM)	5.3	1425	3.5	1.07
SEA RIPPLE		SUN (HR)	0.4	2210	14.4	4.39

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN
508.	12	1	11

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	36.	S.E.	0.23
	N= 50	AVERAGE WEIGHT (G)	0.39	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	1.8	%	2.31
BLUE					
	N= 1	AVERAGE LENGTH (MM)	33.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.30	S.E.	0.00
GREEN					
	N= 11	AVERAGE LENGTH (MM)	34.	S.E.	0.38
	N= 11	AVERAGE WEIGHT (G)	0.33	S.E.	0.02

PINK SALMON-ONCORHYNCHUS GORBUSCHA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
191.	1	1

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	34.	S.E.	0.31
	N= 50	AVERAGE WEIGHT (G)	0.28	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	1.0	%	1.79

4MAY76 1230HR AREA 6 DEPTH 2 1 SET

NEARSHORE BEACH SEINES DESCANSO BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	SE	MAX TEMP (C)	11.7	250	10.7	3.26
SPEED (KM/H)	3	MIN TEMP (C)	7.8	705	12.4	3.78
CLOUD (/10)	10	PRECIP. (MM)	5.3	1425	3.5	1.07
SEA CALM		SUN (HR)	0.4	2210	14.4	4.39

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
177.	11	11

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	37.	S.E.	0.20
	N= 50	AVERAGE WEIGHT (G)	0.40	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	3.4	%	4.25
GREEN					
	N= 11	AVERAGE LENGTH (MM)	36.	S.E.	0.62
	N= 11	AVERAGE WEIGHT (G)	0.41	S.E.	0.02

5MAY76 900HR AREA 16 DEPTH 2 1 SET

NEARSHORE BEACH SEINES DUKE POINT

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	15.0	345	10.6	3.23
SPEED (KM/H)	8	MIN TEMP (C)	3.3	800	11.9	3.63
CLOUD (/10)	2	PRECIP. (MM)	0.3	1510	4.0	1.22
SEA	CALM	SUN (HR)	5.6	2245	14.4	4.39

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN	RED
1702.	12	2	10

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	46.	S.E.	0.73
	N= 50	AVERAGE WEIGHT (G)	1.08	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	7.4	%	3.43
GREEN					
	N= 1	AVERAGE LENGTH (MM)	38.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.54	S.E.	0.00
RED					
	N= 5	AVERAGE LENGTH (MM)	48.	S.E.	1.50
	N= 5	AVERAGE WEIGHT (G)	1.18	S.E.	0.12

PINK SALMON-ONCORHYNCHUS GORBUSCHA			CATCH		1068.
	N= 50	AVERAGE LENGTH (MM)	44.	S.E.	0.65
	N= 50	AVERAGE WEIGHT (G)	0.79	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	3.7	%	2.34

CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA			CATCH		4.
	N= 2	AVERAGE LENGTH (MM)	49.	S.E.	0.50
	N= 2	AVERAGE WEIGHT (G)	1.46	S.E.	0.05
STOMACH CONTENT	N= 2	AVERAGE WEIGHT (MG)	2.8	%	0.96

6MAY76 1400HR AREA 2 DEPTH 2 1 SET

NEARSHORE BEACH SEINES HAMMOND BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	17.8	510	10.1	3.08
SPEED (KM/H)		MIN TEMP (C)	2.8	855	11.3	3.44
CLOUD (/10)	2	PRECIP. (MM)	0.0	1610	4.8	1.46
SEA	CALM	SUN (HR)	10.8	2335	14.5	4.42

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN	RED
4587.	60	12	42	6

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	40.	S.E.	0.65
	N= 50	AVERAGE WEIGHT (G)	0.61	S.E.	-0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	5.1	%	4.18
BLUE					
	N= 4	AVERAGE LENGTH (MM)	36.	S.E.	0.75
	N= 4	AVERAGE WEIGHT (G)	0.34	S.E.	0.03
GREEN					
	N= 14	AVERAGE LENGTH (MM)	37.	S.E.	0.41
	N= 14	AVERAGE WEIGHT (G)	0.44	S.E.	0.01
RED					
	N= 2	AVERAGE LENGTH (MM)	48.	S.E.	3.50
	N= 2	AVERAGE WEIGHT (G)	1.00	S.E.	0.23

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 6687.

	N= 50	AVERAGE LENGTH (MM)	42.	S.E.	0.50
	N= 50	AVERAGE WEIGHT (G)	0.71	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	6.3	%	4.40

10MAY76 1330HR AREA 1 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	SE	MAX TEMP (C)	14.4	145	14.9	4.54
SPEED (KM/H)		MIN TEMP (C)	9.4	840	5.4	1.65
CLOUD (/10)	10	PRECIP. (MM)	3.6	1505	12.6	3.84
SEA	CALM	SUN (HR)	3.2	2020	8.2	2.50

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN
1034.	9	2	7

UNMARKED FISH					
	N= 50	AVERAGE LENGTH (MM)	38.	S.E.	0.35
	N= 50	AVERAGE WEIGHT (G)	0.59	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	4.7	%	3.98
BLUE					
	N= 2	AVERAGE LENGTH (MM)	38.	S.E.	0.50
	N= 2	AVERAGE WEIGHT (G)	0.50	S.E.	0.03
GREEN					
	N= 7	AVERAGE LENGTH (MM)	40.	S.E.	0.80
	N= 7	AVERAGE WEIGHT (G)	0.67	S.E.	0.04
PINK SALMON-ONCORHYNCHUS GORBUSCHA			CATCH		468.
	N= 50	AVERAGE LENGTH (MM)	35.	S.E.	0.35
	N= 50	AVERAGE WEIGHT (G)	0.38	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	2.5	%	3.36

11MAY76 1000HR AREA 4 DEPTH 2 1 SET

NEARSHORE BEACH SEINES SNAKE ISLAND

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	SE	MAX TEMP (C)	16.1	230	15.0	4.57
SPEED (KM/H)	16	MIN TEMP (C)	2.2	920	4.0	1.22
CLOUD (/10)	2	PRECIP. (MM)	0.0	1615	13.6	4.15
SEA	CALM	SUN (HR)	6.6	2120	8.8	2.68

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE
14.	1	1

UNMARKED FISH					
	N= 13	AVERAGE LENGTH (MM)	35.	S.E.	0.63
	N= 13	AVERAGE WEIGHT (G)	0.30	S.E.	0.00
STOMACH CONTENT	N= 10	AVERAGE WEIGHT (MG)	1.6	%	2.67
BLUE					
	N= 1	AVERAGE LENGTH (MM)	37.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.44	S.E.	0.00

11MAY76 1130HR AREA 5 DEPTH 2 1 SET

NEARSHORE BEACH SEINES LOCKE BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY	
WIND DIRECTION	SE	MAX TEMP (C)	16.1
SPEED (KM/H)	16	MIN TEMP (C)	2.2
CLOUD (/10)	6	PRECIP. (MM)	0.0
SEA SHELLS		SUN (HR)	6.6

TIDES

PST	FEET	METERS
230	15.0	4.57
920	4.0	1.22
1615	13.6	4.15
2120	8.8	2.68

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN
791.	8	2	6

UNMARKED FISH	N= 50	AVERAGE LENGTH (MM)	38.	S.E.	0.50
	N= 50	AVERAGE WEIGHT (G)	0.63	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	5.6	%	4.44
BLUE	N= 2	AVERAGE LENGTH (MM)	36.	S.E.	0.50
	N= 2	AVERAGE WEIGHT (G)	0.49	S.E.	0.01
GREEN	N= 6	AVERAGE LENGTH (MM)	36.	S.E.	0.34
	N= 6	AVERAGE WEIGHT (G)	0.53	S.E.	0.01

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 532.

	N= 50	AVERAGE LENGTH (MM)	32.	S.E.	0.36
	N= 50	AVERAGE WEIGHT (G)	0.35	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	2.7	%	3.86

SHINER PERCH-CYMATOGASTER AGGREGATA

PIPEFISHES-FAMILY SYNGNATHIDAE

FLOUNDERS-GENERAL

SCULPINS-FAMILY COTTIDAE

11MAY76 1330HR AREA 6 DEPTH 2 1 SET

NEARSHORE BEACH SEINES DESCANSO BAY

WEATHER CONDITIONS		SUMMARY FOR DAY		TIDES		
AT SET TIME				PST	FEET	METERS
WIND DIRECTION	SE	MAX TEMP (C)	16.1	230	15.0	4.57
SPEED (KM/H)	16	MIN TEMP (C)	2.2	920	4.0	1.22
CLOUD (/10)	10	PRECIP. (MM)	0.0	1615	13.6	4.15
SEA	CALM	SUN (HR)	6.6	2120	8.8	2.68

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN
710.	11	8	3

UNMARKED FISH

	N= 75	AVERAGE LENGTH (MM)	38.	S.E.	0.34
	N= 75	AVERAGE WEIGHT (G)	0.53	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	4.3	%	4.08

BLUE

	N= 8	AVERAGE LENGTH (MM)	36.	S.E.	0.64
	N= 8	AVERAGE WEIGHT (G)	0.47	S.E.	0.02

GREEN

	N= 3	AVERAGE LENGTH (MM)	40.	S.E.	0.33
	N= 3	AVERAGE WEIGHT (G)	0.62	S.E.	0.04

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 85.

	N= 50	AVERAGE LENGTH (MM)	37.	S.E.	0.28
	N= 50	AVERAGE WEIGHT (G)	0.46	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	3.2	%	3.48

11MAY76 1700HR AREA 16 DEPTH 2 4 SETS

NEARSHORE BEACH SEINES DUKE POINT

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY	
WIND DIRECTION	CLM	MAX TEMP (C)	16.1
SPEED (KM/H)		MIN TEMP (C)	2.2
CLOUD (/10)	10	PRECIP. (MM)	0.0
SEA	CALM	SUN (HR)	6.6

TIDES		
PST	FEET	METERS
230	15.0	4.57
920	4.0	1.22
1615	13.6	4.15
2120	8.8	2.68

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
404.	1	1

UNMARKED FISH						
	N= 50	AVERAGE LENGTH (MM)	38.	S.E.	0.36
	N= 50	AVERAGE WEIGHT (G)	0.55	S.E.	-0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	3.6	%	3.27
GREEN					
	N= 1	AVERAGE LENGTH (MM)	40.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.61	S.E.	0.00

CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA CATCH 5.

	N= 5	AVERAGE LENGTH (MM)	43.	S.E.	3.01
	N= 5	AVERAGE WEIGHT (G)	0.98	S.E.	0.24
STOMACH CONTENT	N= 5	AVERAGE WEIGHT (MG)	6.2	%	3.16

SCULPINS-FAMILY COTTIDAE

STARRY FLOUNDER-PLATICHTHYS STELLATUS

SHINER PERCH-CYMATOGASTER AGGREGATA

12MAY76 1615HR AREA 17 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES MARK BAY

WEATHER CONDITIONS

AT SET TIME
WIND DIRECTION
SPEED (KM/H) 8
CLOUD (/10) 10
SEA RIPPLE

SUMMARY FOR DAY

MAX TEMP (C) 13.9
MIN TEMP (C) 7.8
PRECIP. (MM) 2.3
SUN (HR) 0.1

TIDES

PST	FEET	METERS
305	15.2	4.63
1005	2.8	0.85
1710	14.4	4.39
2225	9.3	2.83

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN
1133.	7	4	3

UNMARKED FISH

N= 50	AVERAGE LENGTH (MM)	39.	S.E.	0.39
N= 50	AVERAGE WEIGHT (G)	0.58	S.E.	-0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	5.4	%	4.66

BLUE

N= 4	AVERAGE LENGTH (MM)	36.	S.E.	0.85
N= 4	AVERAGE WEIGHT (G)	0.38	S.E.	0.03

GREEN

N= 3	AVERAGE LENGTH (MM)	39.	S.E.	1.86
N= 3	AVERAGE WEIGHT (G)	0.55	S.E.	0.09

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 6.

N= 6	AVERAGE LENGTH (MM)	48.	S.E.	0.76
N= 6	AVERAGE WEIGHT (G)	1.04	S.E.	0.00
STOMACH CONTENT N= 6	AVERAGE WEIGHT (MG)	1.9	%	0.91

14MAY76 1530HR AREA 2 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES HAMMOND BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY	
WIND DIRECTION	NW	MAX TEMP (C)	17.2
SPEED (KM/H)	16	MIN TEMP (C)	6.7
CLOUD (/10)	2	PRECIP. (MM)	0.0
SEA RIPPLE		SUN (HR)	13.5

TIDES

PST	FEET	METERS
435	15.1	4.60
1135	1.2	0.37
1845	15.4	4.69

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN
1057.	9	1	8

UNMARKED FISH

N= 50	AVERAGE LENGTH (MM)	39.	S.E.	0.64
N= 50	AVERAGE WEIGHT (G)	0.62	S.E.	0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	5.7	%	4.60

BLUE

N= 1	AVERAGE LENGTH (MM)	36.	S.E.	0.00
N= 1	AVERAGE WEIGHT (G)	0.43	S.E.	0.00

GREEN

N= 8	AVERAGE LENGTH (MM)	44.	S.E.	1.11
N= 8	AVERAGE WEIGHT (G)	0.82	S.E.	0.05

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 1314.

N= 50	AVERAGE LENGTH (MM)	35.	S.E.	0.40
N= 50	AVERAGE WEIGHT (G)	0.35	S.E.	0.00
STOMACH CONTENT N= 20	AVERAGE WEIGHT (MG)	3.3	%	4.71

18MAY76 1300HR AREA 1 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	15.6	305	10.1	3.08
SPEED (KM/H)		MIN TEMP (C)	2.2	730	12.4	3.78
CLOUD (/10)	2	PRECIP. (MM)	0.0	1435	3.2	0.98
SEA	CALM	SUN (HR)	8.5	2220	15.1	4.60

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE
497.	1	1

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)	40.	S.E.	0.67
	N= 50	AVERAGE WEIGHT (G)	0.68	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	3.7	%	2.72
BLUE					
	N= 1	AVERAGE LENGTH (MM)	39.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	0.55	S.E.	0.00

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 833.

	N= 50	AVERAGE LENGTH (MM)	40.	S.E.	0.50
	N= 50	AVERAGE WEIGHT (G)	0.68	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	3.4	%	2.54

SCULPINS-FAMILY COTTIDAE

18MAY76 1030HR AREA 17 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES MARK BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	15.6	305	10.1	3.08
SPEED (KM/H)		MIN TEMP (C)	2.2	730	12.4	3.78
CLOUD (/10)	2	PRECIP. (MM)	0.0	1435	3.2	0.98
SEA	CALM	SUN (HR)	8.5	2220	15.1	4.60

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE
275.	2	2

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)	39.	S.E.	0.27
	N= 50	AVERAGE WEIGHT (G)	0.54	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	2.8	%	2.55
BLUE					
	N= 2	AVERAGE LENGTH (MM)	44.	S.E.	0.00
	N= 2	AVERAGE WEIGHT (G)	0.65	S.E.	0.00

SCULPINS-FAMILY COTTIDAE

19MAY76 900HR AREA 16 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES DUKE POINT

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY	
WIND DIRECTION	CLM	MAX TEMP (C)	18.9
SPEED (KM/H)		MIN TEMP (C)	4.4
CLOUD (/10)	1	PRECIP. (MM)	0.0
SEA	CALM	SUN (HR)	8.8

TIDES

PST	FEET	METERS
420	9.6	2.93
830	11.4	3.47
1525	4.4	1.34
2310	14.8	4.51

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE
595.	4	4

UNMARKED FISH						
	N= 50	AVERAGE LENGTH (MM)	39.	S.E.	0.40
	N= 50	AVERAGE WEIGHT (G)	0.58	S.E.	-0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	2.7	%	2.33
BLUE					
	N= 4	AVERAGE LENGTH (MM)	39.	S.E.	1.04
	N= 4	AVERAGE WEIGHT (G)	0.56	S.E.	0.05

PINK SALMON-ONCORHYNCHUS GORBUSCHA				CATCH	553.
	N= 50	AVERAGE LENGTH (MM)	34.	S.E.	0.24
	N= 50	AVERAGE WEIGHT (G)	0.35	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.5	%	2.21

CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA				CATCH	15.
	N= 13	AVERAGE LENGTH (MM)	43.	S.E.	1.14
	N= 13	AVERAGE WEIGHT (G)	0.86	S.E.	0.06
STOMACH CONTENT	N= 13	AVERAGE WEIGHT (MG)	3.4	%	1.98

20MAY76 1300HR AREA 2 DEPTH 2 3 SETS

NEARSHORE BEACH SEINES HAMMOND BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	16.1	540	8.8	2.68
SPEED (KM/H)		MIN TEMP (C)	6.7	950	10.6	3.23
CLOUD (/10)	3	PRECIP. (MM)	0.0	1620	5.7	1.74
SEA	CALM	SUN (HR)	6.9	2355	14.5	4.42

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK BLUE	GREEN
1019.	5	2	3

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)	50.	S.E.	0.88
	N= 50	AVERAGE WEIGHT (G)	1.27	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	8.3	%	3.25

BLUE

	N= 2	AVERAGE LENGTH (MM)	49.	S.E.	3.00
	N= 2	AVERAGE WEIGHT (G)	1.11	S.E.	0.18

GREEN

	N= 3	AVERAGE LENGTH (MM)	56.	S.E.	4.00
	N= 3	AVERAGE WEIGHT (G)	1.73	S.E.	0.32

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 1099.

	N= 50	AVERAGE LENGTH (MM)	41.	S.E.	0.65
	N= 50	AVERAGE WEIGHT (G)	0.67	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	1.7	%	1.27

KELP GREENLING-HEXAGRAMMOS DECAGRAMMUS

PACIFIC SAND LANCE-AMMODYTES HEXAPTERUS

SCULPINS-FAMILY COTTIDAE

26MAY76 1615HR AREA 16 DEPTH 2 3 SETS

NEARSHORE BEACH SEINES DUKE POINT

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	12.2	235	13.4	4.08
SPEED (KM/H)		MIN TEMP (C)	8.3	950	4.1	1.25
CLOUD (/10)		PRECIP. (MM)	8.1	1725	13.4	4.08
SEA	CALM	SUN (HR)	0.0	2215	10.6	3.23

CHUM SALMON-ONCORHYNCHUS KETA CATCH 86.

	N= 50	AVERAGE LENGTH (MM)	40.	S.E.	0.49
	N= 50	AVERAGE WEIGHT (G)	0.65	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	7.6	%	5.85

CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA CATCH 2.

SCULPINS-FAMILY COTTIDAE

SHINER PERCH-CYMATOGASTER AGGREGATA

27MAY76 1300HR AREA 5 DEPTH 2 1 SET

NEARSHORE BEACH SEINES LOCKE BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	E	MAX TEMP (C)	15.6	300	13.4	4.08
SPEED (KM/H)	8	MIN TEMP (C)	6.1	1020	3.5	1.07
CLOUD (/10)	5	PRECIP. (MM)	1.5	1755	13.8	4.21
SEA RIPPLE		SUN (HR)	10.2	2255	10.8	3.29

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
421.	1	1

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)	57.	S.E.	0.71
	N= 50	AVERAGE WEIGHT (G)	1.72	S.E.	-0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	10.7	%	5.11

GREEN

	N= 1	AVERAGE LENGTH (MM)	59.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	1.93	S.E.	0.00

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 74.

	N= 50	AVERAGE LENGTH (MM)	50.	S.E.	1.02
	N= 50	AVERAGE WEIGHT (G)	1.19	S.E.	-0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	7.9	%	5.32

27MAY76 1100HR AREA 6 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES DESCANSO BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	W	MAX TEMP (C)	15.6	300	13.4	4.08
SPEED (KM/H)	3	MIN TEMP (C)	0.1	1020	3.5	1.07
CLOUD (/10)	7	PRECIP. (MM)	1.5	1755	13.8	4.21
SEA RIPPLE		SUN (HR)	10.2	2255	10.8	3.29

CHUM SALMON-ONCORHYNCHUS KETA CATCH 1136.

	N= 50	AVERAGE LENGTH (MM)	41.	S.E.	0.89
	N= 50	AVERAGE WEIGHT (G)	0.73	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	6.8	%	4.66

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 41.

	N= 41	AVERAGE LENGTH (MM)	43.	S.E.	0.91
	N= 41	AVERAGE WEIGHT (G)	0.81	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	7.9	%	4.88

28MAY76 1100HR AREA 2 1 SET

NEARSHORE BEACH SEINES HAMMOND BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	CLM	MAX TEMP (C)	12.2	340	13.4	4.08
SPEED (KM/H)		MIN TEMP (C)	0.6	1055	3.1	0.94
CLOUD (/10)	10	PRECIP. (MM)	2.5	1835	14.2	4.33
SEA	CALM	SUN (HR)	3.2	2325	10.9	3.32

CHUM SALMON-ONCORHYNCHUS KETA CATCH 10.

	N= 9	AVERAGE LENGTH (MM)	42.	S.E.	1.03
	N= 9	AVERAGE WEIGHT (G)	0.68	S.E.	-0.00
STOMACH CONTENT	N= 9	AVERAGE WEIGHT (MG)	4.2	%	3.09

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 534.

	N= 50	AVERAGE LENGTH (MM)	44.	S.E.	0.41
	N= 50	AVERAGE WEIGHT (G)	0.80	S.E.	0.00
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)	5.1	%	3.22

28MAY76 930HR AREA 4 DEPTH 4 1 SET

NEARSHORE BEACH SEINES SNAKE ISLAND

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	S	MAX TEMP (C)	12.2	340	13.4	4.08
SPEED (KM/H)	16	MIN TEMP (C)	0.6	1055	3.1	0.94
CLOUD (/10)	5	PRECIP. (MM)	2.5	1835	14.2	4.33
SEA	RIPPLE	SUN (HR)	3.2	2325	10.9	3.32

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
3210.	10	10

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)	46.	S.E.	0.90
	N= 50	AVERAGE WEIGHT (G)	1.11	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	14.2	%	6.40

GREEN

	N= 1	AVERAGE LENGTH (MM)	54.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)	1.75	S.E.	0.00

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 26700.

	N= 47	AVERAGE LENGTH (MM)	45.	S.E.	0.69
	N= 47	AVERAGE WEIGHT (G)	0.99	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)	11.0	%	5.56

1JUN76 1500HR AREA 1

NEARSHORE BEACH SEINES BIOLOGICAL STATION

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION		MAX TEMP (C)	13.3	145	10.7	3.26
SPEED (KM/H)		MIN TEMP (C)	0.6	605	12.8	3.90
CLOUD (/10)		PRECIP. (MM)	6.3	1320	2.8	0.85
SEA		SUN (HR)	7.9	2045	14.9	4.54

PINK SALMON-ONCORHYNCHUS GORBUSCHA					CATCH	15525.
	N= 50	AVERAGE LENGTH (MM)		49.	S.E.	0.62
	N= 89	AVERAGE WEIGHT (G)		1.03	S.E.	0.32
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)		2.4	%	1.19
CHUM SALMON-ONCORHYNCHUS KETA					CATCH	3375.
	N= 50	AVERAGE LENGTH (MM)		49.	S.E.	0.74
	N= 55	AVERAGE WEIGHT (G)		1.29	S.E.	0.09
STOMACH CONTENT	N= 20	AVERAGE WEIGHT (MG)		3.8	%	1.50

2JUN76 1015HR AREA 4 DEPTH 5 1 SET

NEARSHORE BEACH SEINES SNAKE ISLAND

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	E	MAX TEMP (C)	14.4	235	10.4	3.17
SPEED (KM/H)	16	MIN TEMP (C)	3.3	655	12.4	3.78
CLOUD (/10)	3	PRECIP. (MM)	1.3	1410	3.3	1.01
SEA RIPPLE		SUN (HR)	8.8	2135	14.9	4.54

CHUM SALMON-ONCORHYNCHUS KETA					CATCH	89.
	N= 50	AVERAGE LENGTH (MM)		45.	S.E.	1.01
	N= 50	AVERAGE WEIGHT (G)		0.98	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)		8.5	%	4.34
PINK SALMON-ONCORHYNCHUS GORBUSCHA					CATCH	498.
	N= 50	AVERAGE LENGTH (MM)		49.	S.E.	0.64
	N= 50	AVERAGE WEIGHT (G)		1.14	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)		6.1	%	2.68
PACIFIC SAND LANCE-AMMODYTES HEXAPTERUS					CATCH	6000.
CHINOOK SALMON-ONCORHYNCHUS TSHAWYTSCHA					CATCH	1.
SCULPINS-FAMILY COTTIDAE					CATCH	6.

2JUN76 1230HR AREA 5 DEPTH 2 2 SETS

NEARSHORE BEACH SEINES LOCKE BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	E	MAX TEMP (C)	14.4	235	10.4	3.17
SPEED (KM/H)	8-16	MIN TEMP (C)	3.3	655	12.4	3.78
CLOUD (/10)	3	PRECIP. (MM)	1.3	1410	3.3	1.01
SEA	CHOP	SUN (HR)	8.8	2135	14.9	4.54

CHUM SALMON-ONCORHYNCHUS KETA

					CATCH	427.
	N= 50	AVERAGE LENGTH (MM)		55.	S.E.	0.93
	N= 50	AVERAGE WEIGHT (G)		1.75	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)		21.4	%	6.11

PINK SALMON-ONCORHYNCHUS GORBUSCHA

					CATCH	1128.
	N= 50	AVERAGE LENGTH (MM)		49.	S.E.	0.82
	N= 50	AVERAGE WEIGHT (G)		1.25	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)		14.2	%	5.68

2JUN76 1415HR AREA 6 DEPTH 4 1 SET

NEARSHORE BEACH SEINES DESCANSO BAY

WEATHER CONDITIONS

AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	E	MAX TEMP (C)	14.4	235	10.4	3.17
SPEED (KM/H)	8-16	MIN TEMP (C)	3.3	655	12.4	3.78
CLOUD (/10)	7	PRECIP. (MM)	1.3	1410	3.3	1.01
SEA	LT RIP	SUN (HR)	8.8	2135	14.9	4.54

CHUM SALMON-ONCORHYNCHUS KETA

TOTAL CATCH	TOTAL MARKS	CATCH BY TYPE OF MARK GREEN
95.	1	1

UNMARKED FISH

	N= 50	AVERAGE LENGTH (MM)		44.	S.E.	0.63
	N= 50	AVERAGE WEIGHT (G)		0.85	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)		8.7	%	5.12

GREEN

	N= 1	AVERAGE LENGTH (MM)		42.	S.E.	0.00
	N= 1	AVERAGE WEIGHT (G)		0.73	S.E.	0.00

PINK SALMON-ONCORHYNCHUS GORBUSCHA

					CATCH	32.
	N= 32	AVERAGE LENGTH (MM)		46.	S.E.	0.83
	N= 32	AVERAGE WEIGHT (G)		0.88	S.E.	0.00
STOMACH CONTENT	N= 15	AVERAGE WEIGHT (MG)		7.1	%	4.03

16JUN76 1015HR AREA 4 DEPTH 5 1 SET

NEARSHORE BEACH SEINES SNAKE ISLAND

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	20.6	250	9.5	2.90
SPEED (KM/H)	8	MIN TEMP (C)	11.7	720	12.2	3.72
CLOUD (/10)	10	PRECIP. (MM)	0.5	1405	3.8	1.16
SEA RIPPLE		SUN (HR)	5.3	2135	15.1	4.60

SOCKEYE SALMON-ONCORHYNCHUS NERKA CATCH 1.

LARVAL FISHES

16JUN76 1130HR AREA 5 DEPTH 4 1 SET

NEARSHORE BEACH SEINES LUCKE BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	20.6	250	9.5	2.90
SPEED (KM/H)	8	MIN TEMP (C)	11.7	720	12.2	3.72
CLOUD (/10)	10	PRECIP. (MM)	0.5	1405	3.8	1.16
SEA LT RIP		SUN (HR)	5.3	2135	15.1	4.60

PINK SALMON-ONCORHYNCHUS GORBUSCHA CATCH 2.

STOMACH CONTENT	N= 2	AVERAGE WEIGHT (G)	1.61	S.E.	1.61
	N= 2	AVERAGE WEIGHT (MG)	5.0	%	1.55

SOCKEYE SALMON-ONCORHYNCHUS NERKA CATCH 1.

16JUN76 1315HR AREA 6 DEPTH 2 1 SET

NEARSHORE BEACH SEINES DESCANSO BAY

WEATHER CONDITIONS AT SET TIME		SUMMARY FOR DAY		TIDES PST	FEET	METERS
WIND DIRECTION	NW	MAX TEMP (C)	20.6	250	9.5	2.90
SPEED (KM/H)	8	MIN TEMP (C)	11.7	720	12.2	3.72
CLOUD (/10)	9	PRECIP. (MM)	0.5	1405	3.8	1.16
SEA CHOP		SUN (HR)	5.3	2135	15.1	4.60

CHUM SALMON-ONCORHYNCHUS KETA CATCH 3.

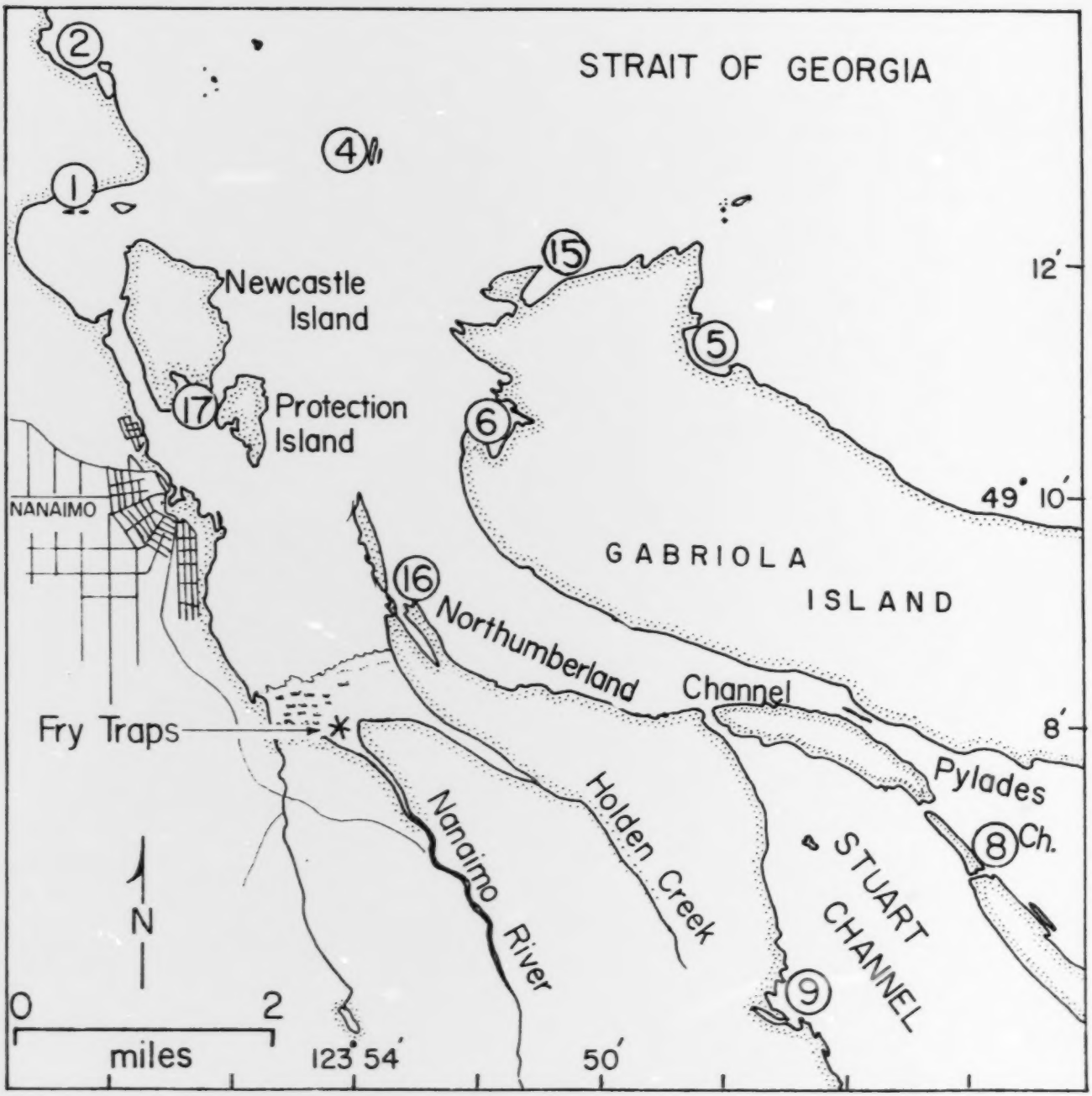

Fig. 1. Map of the study area showing sampling locations.